

Claims

1. An electronic-form preparation system comprising:

an input pen including a writing member for handwriting characters into a form having a predetermined format, and a transmitter provided in the vicinity of a tip of said writing member for emitting a signal when making entries into said form by said input pen is started;

a coordinate-input device including a plurality of receivers spaced from each other and receiving said signal emitted from said transmitter, and a signal processing circuit for determining coordinates of a series of points constituting a part of a locus of a character handwritten into said form by said input pen on the basis of timing of reception of said signal by each of said receivers; and

a data processor including electronic-form data generator for generating data of an electronic form on the basis of said coordinates supplied from said coordinate-input device.

2. An electronic-form preparation system according to claim 1, in which said data processor further includes character-recognition unit for recognizing said character handwritten into said form by said input pen on the basis of said coordinates supplied from said coordinate-input device.

3. An electronic-form preparation system according to claim 2, in which said data processor further includes:

identifying-character registration unit for registering identifying characters used for identifying form types,

form-format registration unit for registering format for each of said form types; and

form-type determining unit for determining a form type of said form by comparing an identifying character which has been entered into a predetermined area in said form by said input pen and identified by said character-recognition unit with said identifying characters registered in said identifying-character registration unit;

said character-recognition unit reading, from said form-format

registration unit, a form-format of an electronic form corresponding to said form whose form type has been determined by said form-type determining unit, and recognizing characters entered into areas other than said predetermined area of said form on the basis of said form-format read from said form-format registration unit;

said electronic-form data generating unit generating data of an electronic form corresponding to said form whose form type has been determined by said form-type determining unit.

4. An electronic-form preparation system according to claim 2, in which an identifying character is printed beforehand in said form to identify a form type of said form.

5. An electronic-form preparation system according to claim 1, said transmitter including an ultrasonic oscillator for periodically emitting an ultrasonic wave of a pulse train having a predetermined number of ultrasonic pulses, and an electromagnetic wave emitter for periodically emitting an electromagnetic wave of a pulse train having a predetermined number of electromagnetic pulses;

said receivers including a first ultrasonic receiver disposed so as to be in contact with or adjacent to one end of a side of said form for receiving said ultrasonic wave emitted from said ultrasonic oscillator, a second ultrasonic receiver disposed so as to be in contact with or adjacent to the other end of said side of said form for receiving said ultrasonic wave emitted from said ultrasonic oscillator, and an electromagnetic wave receiver disposed between said first and second ultrasonic receivers for receiving said electromagnetic wave emitted from said electromagnetic wave emitter;

said coordinate-input device including a distance-determining unit for determining a first distance between said ultrasonic oscillator and said first ultrasonic receiver and a second distance between said ultrasonic oscillator and said second ultrasonic receiver,

said signal processing circuit determining coordinates of a position of said ultrasonic oscillator on the basis of said first and second distances determined by said distance-determining units and a

distance between said first ultrasonic receiver and said second ultrasonic receiver by trigonometry.

6. An electronic-form preparation system according to claim 1,
said transmitter including an ultrasonic oscillator for emitting an ultrasonic wave of a pulse train having a predetermined number of ultrasonic pulses,

said receivers including three or more ultrasonic receivers spaced from each other and receiving said ultrasonic wave emitted from said ultrasonic oscillator,

said coordinate-input device including a hyperbolic curve determining unit for determining, for each of two or more groups, each group including two ultrasonic receivers selected from said three or more ultrasonic receivers, a hyperbolic curve on which two associated ultrasonic receivers lie on the basis of timing of reception of said ultrasonic wave emitted from said ultrasonic oscillator by said two associated ultrasonic receivers,

said signal processing circuit determining coordinates of a position of said ultrasonic oscillator from a point of intersection of two or more hyperbolic curves determined by said hyperbolic curve determining unit.